



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2017-1038; Product Identifier 2017-CE-024-AD; Amendment 39-19197; AD 2018-04-02]

RIN 2120-AA64

Airworthiness Directives; Viking Air Limited Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final Rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Viking Air Limited Models DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and address an unsafe condition on an aviation product. The MCAI describes the unsafe condition as aileron cable wear; fouling at the wing root rib, fuselage skin, and wing root rib fairlead; and/or fraying of the cable from the root rib fairlead. We are issuing this AD to require actions to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1038; or in person at Docket Operations, U.S. Department of Transportation, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE., Washington, DC 20590.

For service information identified in this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (866) 492-8527; fax: (250) 656-0673; email: technical.support@vikingair.com; Internet: <http://www.vikingair.com/support/service-bulletins>. You may view this referenced service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available on the Internet at <http://www.regulations.gov> by searching for Docket No. FAA-2017-1038.

FOR FURTHER INFORMATION CONTACT: James Delisio, Program Manager, Continued Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Westbury, New York 11590; telephone: (516) 228-7300; fax: (516) 794-5531; email: 9-avs-nyaco-cos@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Viking Air Limited Models DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes. The NPRM was published in the *Federal Register* on November 6, 2017 (82 FR 51367). The NPRM proposed to correct an unsafe condition for the specified products and was based on mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country.

The MCAI states:

There have been reports of accelerated aileron cable wear because of contact with the fuselage skin cut-out or the wing root rib. Wear that is not detected can lead to failure of the aileron cable and loss of control of the aeroplane.

The root cause of this problem has not yet been identified. This [Transport Canada] AD requires inspection of the aeroplane and reporting of the inspection results to Viking Air Ltd. This [Transport Canada] AD is considered an interim action and further AD action may follow.

Aileron cables are typically replaced at intervals of 60 months in accordance with the DHC-6 maintenance schedule.

The MCAI can be found in the AD docket on the Internet at:

<https://www.regulations.gov/document?D=FAA-2017-1038-0002>.

Comments

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the proposal and the FAA's response to the comment.

Request a Change to the Corrective Actions

Mathew Carlson stated the proposed actions are not necessary. Although the root cause has not yet been determined, the cause appears obvious and the appropriate actions to take are obvious as well. The commenter stated they believe the corrective actions proposed are unnecessary, and the root cause is an alignment issue between pulleys and the fuselage cutout. The commenter believes the corrective action should be to trim the fuselage cutout for better clearance and to not require the repetitive inspections.

We do not agree with the commenter. While it is possible the commenter's root cause/solution is correct, we disagree that the cable inspection and/or replacement has no benefit. Until enough information is gathered and analyzed to accurately determine the root cause of the issue, the repetitive inspection (and replacement if necessary) is the action necessary to address the unsafe condition and provide a safe method to continue airplane operation.

We have not changed this AD based on this comment.

Conclusion

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting the AD as proposed except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Related Service Information under 1 CFR part 51

Viking Air Limited issued DHC-6 Twin Otter Service Bulletin Number: V6/0022, Revision B, dated June 13, 2014. The service information describes procedures for initial and repetitive inspections of the aileron cable for aileron cable wear; fouling at the wing root rib, fuselage skin, and wing root rib fairlead; and/or fraying of the cable from the root rib fairlead; and replacement of the aileron cables as necessary. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of the AD.

Costs of Compliance

We estimate that this AD will affect 141 products of U.S. registry. We also estimate that it would take about 20 work-hours per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of this AD on U.S. operators to be \$239,700, or \$1,700 per product.

In addition, the following is an estimate of possible necessary follow-on replacement actions. We have no way of determining the number of products that may need these actions.

Action	Work-hours*	Labor Cost (\$85/hour)	Parts Cost	Cost per Product
Replace 1 cable	6	\$510	\$244	\$754
Replace 2 cables (on the same wing)	8	\$680	\$458	\$1,138
Replace 2 cables (one on each wing)	12	\$1,020	\$488	\$1,508
Replace all 4 cables (2 per wing)	16	\$1,360	\$916	\$2,336

*Work-hours includes access, testing, and close-up.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of

Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591. ATTN: Information Collection Clearance Officer, AES-200.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. "Subtitle VII: Aviation Programs," describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in "Subtitle VII, Part A, Subpart III, Section 44701: General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to small airplanes, gliders, balloons, airships, domestic business jet transport airplanes, and associated appliances to the Director of the Policy and Innovation Division.

Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1038; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for Docket Operations (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new AD:

2018-04-02 **Viking Air Limited:** Amendment 39-19197; Docket No. FAA-2017-1038;
Product Identifier 2017-CE-024-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Viking Air Limited Models DHC-6-1, DHC-6-100, DHC-6-200, DHC-6-300, and DHC-6-400 airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 27: Flight Controls.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and address an unsafe condition on an aviation product. The MCAI describes the unsafe condition as aileron cable wear; fouling at the wing root rib, fuselage skin, and wing root rib fairlead; and/or fraying of the cable from the root rib fairlead. We are issuing this AD to identify and address wear on the aileron cable fuselage skin cut-out and on the wing root rib fairlead, and any fraying of the cable from the root rib fairlead, which could lead to failure of the aileron cable and loss of control.

(f) Actions and Compliance

Unless already done, do the following actions in paragraphs (f)(1) through (5) of this AD:

(1) Within the next 50 hours time-in-service (TIS) after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or before the aileron cables have accumulated 300 hours TIS, whichever occurs later, inspect the aileron cables following the Accomplishment Instructions in Viking Air Limited Service Bulletin V6/0022, Revision B, dated June 13, 2014 (SB V6/0022, Revision B). Inspect repetitively thereafter at intervals not to exceed 500 hours TIS, but not to exceed five inspections (the initial and four repetitives).

(2) If any discrepancies are found during any of the inspections required in paragraph (f)(1) of this AD, before further flight, replace the aileron cable(s) following the Accomplishment Instructions in SB V6/0022, Revision B.

(3) Upon completion of the initial and four repetitive inspections detailed in paragraph (f)(1) of this AD, resume the inspections specified in the maintenance program.

(4) Within 30 days after completion of each inspection detailed in paragraph (f)(1) of this AD, report the results of each inspection to Viking Air Limited in accordance with the reporting instructions in SB V6/0022, Revision B.

(5) Installation of new aileron cables or re-installation of existing cables that have been removed for any reason re-starts the inspections required in paragraph (f)(1) of this AD.

(g) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs)*: The Manager, New York ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: James Delisio, Program Manager, Continued Operational Safety, FAA, New York ACO Branch, 1600 Stewart Avenue, Westbury, New York 11590; telephone: (516) 228-7300; fax: (516) 794-5531; email: 9-avs-nyaco-cos@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, New York ACO Branch, FAA; or Transport Canada; or Viking Air Limited's Transport Canada Design Approval Organization (DAO). If approved by the DAO, the approval must include the DAO-authorized signature.

(3) *Reporting Requirements*: For any reporting requirement in this AD, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(h) Related Information

Refer to MCAI Transport Canada AD Number CF-2017-20, dated June 7, 2017, for related information. The MCAI can be found in the AD docket on the Internet at: <https://www.regulations.gov/document?D=FAA-2017-1038-0002>.

(i) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Viking Air Limited Service Bulletin V6/0022, Revision B, dated June 13, 2014.

(ii) Reserved.

(3) For Viking Air Limited service information identified in this AD, contact Viking Air Limited Technical Support, 1959 De Havilland Way, Sidney, British Columbia, Canada, V8L 5V5; telephone: (North America) (866) 492-8527; fax: (250) 656-0673; email: technical.support@vikingair.com; Internet: <http://www.vikingair.com/support/service-bulletins>.

(4) You may view this service information at the FAA, Policy and Innovation Division, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call [(816) 329-4148]. In addition, you can access this service information on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1038.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the

availability of this material at NARA, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Kansas City, Missouri, on February 12, 2018.

Melvin J. Johnson,
Deputy Director, Policy & Innovation Division,
Aircraft Certification Service.

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